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Advancing Scientific Research and Education at the FLB Reiche Zeche underground mine in Freiberg - Germany

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The shaft at Reiche Zeche mine provides direct access to the research and training underground mine of the reputed TU Bergakademie Freiberg, where advanced scientific research and practical education is executed for more than 100 years now.

Since 1919, the former ore mine is used for educating and training of miners, engineers and mine surveyors by the TU Bergakademie Freiberg. Drifts and tunnels of the mine stretch over several kilometres at depths down to 230 m. Today, the Reiche Zeche mine plays a major role in mining research and related activities including various research institutes and industrial partners. Several underground test facilities and laboratories are in use and play a key role in university education. A variety of local (15 institutes of TU Bergakademie Freiberg) and external partners (30 from 26 countries) are actively shaping research and education in the mine.

Real-world applications and cutting-edge technologies are tested in a stimulating environment underground, helping to improve competitiveness, leadership, creativity and critical thinking of researchers, companies and stakeholders.

Most recent research projects provide innovative solutions in way different fields. Robotics, smart mining, geophysical monitoring, a blasting chamber used for material science research, and also new mining technologies such as biohydrometallurgical mining for the winning of metals from ores, tailings and recycling material are only a small sample of the Reiche Zeche's advanced innovation areas.

At Reiche Zeche mine, an efficient research and innovation environment is provided. It includes high quality underground spaces, cutting-edge methodology, state-of-the art labs, high-quality staff, resources and services to industries, talented individuals, leading researchers and teams from six continents, who truly want to make a real positive difference in the Society, contributing therefore, to sustainable optimisation for the raw materials value chain.

We are actively contributing to the European Underground Laboratories (EUL) network, forming an efficient platform for future, innovative research and business activities in underground laboratories. We are always open for collaboration with interested researchers and related stakeholders.

